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## CAULIFLOWER TRIAL, 1994-1995

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## **CAULIFLOWER TRIAL 1994-1995**

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This evaluation was performed strictly for a potential fall market. Cauliflower was evaluated at the horticulture farm in Wooster, Ohio. Soils at this location are a clay loam type with irrigation available if needed. There were twenty-seven cauliflower entries in 1994 and fifteen entries in 1995. Each entry was replicated four times. The plots consisted of one row, twenty-seven feet long and three feet wide. Cauliflower spacing was ten inches between plants and five inches between plants (1995 only). Transplants were first grown for four weeks in 288 plug trays. These plants were at the third to fourth true leaf stage of development. Weather conditions at the time of transplanting were mild with adequate moisture for transplanting. Upon completion of the transplanting, supplemental irrigation was applied in the form of a overhead solid set sprinkler system. Irrigation from that point on was not needed. Prior to head development, plants were sidedressed with 30 units of nitrogen using ammonium nitrate. Fall weather conditions were ideal for head development both years. Cool temperatures, light dews, limited rainfall, and very little disease pressure.

Cauliflower heads were not tied for producing white heads. The reason behind this was to see if this practice was needed and to see if it was necessary for consumer exceptions.

Of the twenty-seven entries in 1994, the top nine were as follows: Montavo (Rogers NK)-67 days; Shasta (Rogers NK)-90 days; Silver Streak (Asgrow)-75 days; Sentinel (Petoseed)-82 days; PX536390 (Petoseed)-82 days; Candid Charm (Sakata)-82 days; Incline (Sakata)-90 days; Fremont (Royal Sluis)-75 days; and Mystique (Takii)-96 days.

In 1995, a hard freeze occurred around November 6 at which time heads were no longer acceptable for harvest. Two cultivars were rated the best in 1995: Fremont (Petoseed) and Rushmore (Siegers).

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Table 1. Environmental factors at each of the research facilities and grower operations.

Month	Rainfall		Long-term avg. (in.)	Air Temperature				Long-term avg. (°F)	
	(in)			avg. min.		avg. max.		avg. min.	avg. max.
	'94	'95		'94	'95	'94	'95	'94	'94
Wooster									
May	1.84	4.54	3.90	41.3	46.7	67.8	69.7	46.5	70.6
June	4.28	3.05	3.95	56.8	60.0	83.2	83.2	55.5	79.4
July	2.08	3.57	4.16	61.9	62.9	84.5	85.5	59.7	83.6
August	5.00	3.28	3.65	57.0	65.2	80.0	87.8	57.8	82.0
September	1.24	1.06	3.15	49.1	47.7	75.0	74.1	51.4	75.6
October	0.55	4.77	1.91	39.7	44.1	65.1	64.8	46.4	57.4

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Table 1. Plant and head characteristics of fresh market cauliflower grown in Wooster, OH 1994.

Cultivar	Source	Days to harvest	Head wt. (oz)	Head dia. (in)	Comments
Amazing	Bejo	82	26.21	8.14	Small plants, no wrapper leaves, rough heads.
Lateman	Bejo	96	30.16	9.50	Small plants, small heads, not worth harvesting.
Montano	Rogers NK	67	26.92	10.00	Large uniform heads, very early, heads are an attractive yellow color.
Shasta	Rogers NK	90	36.88	9.97	Large plants, large uniform heads, excellent wrapper leaves, very attractive.
White Rock	Martin Rispens	96	28.72	9.00	Small heads, breakdown in heads.
White Cloud	Asgrow	82	27.95	9.00	Small plants, smooth heads, no wrapper leaves, not real attractive.
Silver Streak	Asgrow	75	31.49	7.00	Short plant, but good wrapper leaves, very uniform, very attractive.
Sentinel	Petoseed	82	37.15	11.00	Large plants, pink tint to heads, no wrapper leaves, very attractive.
PX 536390	Petoseed	82	39.34	11.12	Excellent tall foliage with good wrapper leaves, heads not real big, but acceptable.
Minuteman	Petoseed	75	37.02	7.50	Heads are rough looking, lots of off types, not acceptable.
Guardian	Petoseed	96	43.68	12.50	Off type heads, decay in remaining heads, not worth harvesting.
Starbrite	Abbott & Cobb	75	32.20	9.00	Medium plant size, fair wrapper leaves, rough heads, not attractive.
Yukon	Sakata	90	38.54	13.00	Large uniform head, but odd shaped, no wrapper leaves.
Cashmere	Sakata	75	39.68	8.00	Plants are very blue, heads are open with little coverage, tip burn on outer edges of leaves.

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Table 1. Plant and head characteristics of fresh market cauliflower grown in Wooster, OH 1994.(con t.)

Cultivar	Source	Days to harvest	Head wt. (oz)	Head dia. (in)	Comments
Candid Charm	Sakata	82	43.12	16.00	Large plants, big heads, heads are smooth with a bright yellow color.
White Magic	Sakata	96	34.37	11.33	Large heads, excellent wrapper leaves, heads starting to decay.
Incline	Sakata	90	42.68	11.00	Large plant growth, excellent wrapper leaves, large uniform heads, very attractive.
Amazing	Johnny's	82	28.43	9.33	Small plants, small to big heads, no wrapper leaves.
Sierra Nevada	Royal Sluis	90	29.86	10.00	Small plants, small heads with breakdown in heads.
Cumberland	Royal Sluis	82	35.24	9.00	Medium size heads, very uniform, no wrapper leaves.
Fremont	Royal Sluis	75	30.78	8.00	Large heads, excellent wrapper leaves with pure white heads, very uniform.
Andes	Royal Sluis	82	32.68	10.12	Small plants, rough heads, not very attractive.
Mariposa	Royal Sluis	96	35.76	9.00	Excellent wrapper leaves, small plants, not very uniform head size.
Polar Cap	Ferry Morse	96	31.56	9.25	Large plants, large open heads, not very uniform head size.
Mystique	Takii	96	29.52	9.50	Large plants, excellent wrapper leaves, very uniform head size and shapely, very attractive.
Snow Grace	Takii	67	18.02	8.00	No wrapper leaves, heads not uniform in size or shape, purple color in heads.

Seeded: June 27

Transplanted: July 29

Plant Spacing: 3' between rows  
10" between plants

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Table 2. Plant and head characteristics of fresh market cauliflower grown in Wooster, Ohio 1995.

Cultivar	Source	Days to harvest	<u>Ten inch spacing</u>		<u>Five inch spacing</u>		Comments
			head wt. (oz)	head dia. (in)	head wt. (oz)	head dia. (in)	
Bejo 1642	Bejo	77-80	44.60	8.13	22.70	4.78	Small heads, but thick, excellent coverage.
Fremont	Petoseed	77-80	43.43	8.00	35.21	6.00	Medium size heads, fair coverage.
Cashmere	Sakata	77-80	39.87	8.00	34.12	6.00	No coverage, heads are loose.
*Rushmore	Siegers	77-80	55.24	10.00	40.12	8.00	Heads are large with excellent coverage. Heads were hard to see.
Minuteman	Petoseed	77-80	32.40	6.00	22.50	4.21	Not uniform, large and small heads, some coverage.
Whitepassions	Sakata	77-80	47.02	9.00	33.42	7.00	Medium to large heads, excellent wrapper leaves, pure white.
Ravella	Petoseed	77-80	38.93	7.00	29.82	5.00	Small heads, very uniform, excellent coverage.
Bejo 1573	Bejo	84-90	39.67	8.00	30.18	7.00	Medium size, very uniform, excellent coverage.
Fargo	Bejo	84-90	36.40	8.00	30.17	6.00	Lumpy heads, not uniform, excellent coverage.
Icon	Harris-Moran	84-90	39.67	10.00	35.12	8.00	Large, loose heads, no coverage.
Serrano	Siegers	84-90	47.29	8.00	39.42	7.00	Nice uniform heads, no coverage.
Amazing	Bejo	84-90	43.91	8.00	35.42	6.00	Medium size heads, no coverage.
FMX 88	Ferry-Morse	95	35.38	6.00	28.75	4.00	Small heads, excellent coverage, not uniform.

Cultivars Polarcap (Ferry-Morse) and Lateman (Bejo) were not harvested due to the shortness of growing time.

Seeded: June 24, 1995

Transplanted: July 30, 1995

Plant Spacing: 3 feet between rows; 5 inches and 10 inches between plants.

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